

AMENDATORY SECTION (Amending WSR 01-11-038, filed 5/9/01, effective 9/1/01)

WAC 296-54-507 Employer's responsibilities. The employer must comply with the requirements of all safety and health regulations and must:

(1) Provide safety training for (~~new employees~~) each employee.

(2) Take additional precautions to ensure safe logging operations when extreme weather or other extreme conditions create hazards. If the logging operation cannot be made safe, the work must be discontinued until safe to resume.

(3) Ensure that danger trees within reach of landings, rigging, buildings, or work areas are either fell before regular logging operations begin, or arrange work so that employees are not exposed to the related hazards.

(4) Develop and maintain a chemical hazard communication program as required by WAC 296-800-170. The program must provide information to all employees about hazardous chemicals or substances to which they are exposed, or may become exposed, in the course of their employment.

(5) Ensure that intoxicating beverages and narcotics are prohibited on or near the worksite. The employer must remove from the worksite any employee under the influence of alcohol or narcotics.

Note: Narcotics do not include prescription drugs taken under a doctor's direction if the use does not endanger any employee.

[Statutory Authority: RCW 49.17.010, [49.17].040, and [49.17].050. 01-11-038, § 296-54-507, filed 5/9/01, effective 9/1/01; 99-17-117, § 296-54-507, filed 8/18/99, effective 12/1/99. Statutory Authority: Chapter 49.17 RCW. 94-16-145, § 296-54-507, filed 8/3/94, effective 9/12/94; 89-11-035 (Order 89-03), § 296-54-507, filed 5/15/89, effective 6/30/89. Statutory Authority: RCW 49.17.040, 49.17.050, 49.17.240, chapters 43.22 and 42.30 RCW. 80-11-057 (Order 80-15), § 296-54-507, filed 8/20/80. Statutory Authority: RCW 49.17.040, 49.17.150 and 49.17.240. 79-10-081 (Order 79-14), § 296-54-507, filed 9/21/79.]

AMENDATORY SECTION (Amending WSR 99-17-117, filed 8/18/99, effective 12/1/99)

WAC 296-54-51140 Hand protection. (1) ~~((Each))~~ The employer must provide, and make sure that each employee handling wire rope ~~((or other rough materials must wear))~~ uses, hand protection that provides adequate protection from puncture wounds, cuts, and lacerations.

(2) Hand protection must be maintained in serviceable condition.

[Statutory Authority: RCW 49.17.010, [49.17].040 and [49.17].050. 99-17-117, § 296-54-51140, filed 8/18/99, effective 12/1/99.]

AMENDATORY SECTION (Amending WSR 99-17-117, filed 8/18/99, effective 12/1/99)

WAC 296-54-515 Accident prevention program. (1) The employer must develop a formal accident prevention program, tailored to the needs of the particular logging operation and to the type of hazards involved. The program must be implemented in a manner that is effective in practice.

(2) The accident prevention program must be in writing.

(3) The accident prevention program must cover at least the following elements:

(a) A safety training program that describes the employer's total safety program.

~~((a))~~ (b) How and when to report injuries;

~~((b))~~ (c) The location of first-aid supplies;

~~((c))~~ (d) Safe use, operation and maintenance of tools, machines and vehicles the employee uses or operates;

(e) How to report unsafe conditions and practices;

~~((d))~~ (f) The use and care of required personal protective equipment;

~~((e))~~ (g) An on-the-job review of the practices necessary

to perform job assignments safely; and

((~~f~~)) (h) Recognition of safety and health hazards associated with the employee's specific work tasks, including using measures and work practices to prevent or control those hazards.

(4) The employer must document and maintain current records of required training, including:

- ✎ Who was trained;
- ✎ The date(s) of the training; and
- ✎ The signature of the trainer or the employer.

[Statutory Authority: RCW 49.17.010, [49.17].040 and [49.17].050. 99-17-117, § 296-54-515, filed 8/18/99, effective 12/1/99. Statutory Authority: RCW 49.17.040, [49.17].050 and [49.17].060. 96-22-013, § 296-54-515, filed 10/28/96, effective 1/1/97. Statutory Authority: RCW 49.17.040, 49.17.050, 49.17.240, chapters 43.22 and 42.30 RCW. 80-11-057 (Order 80-15), § 296-54-515, filed 8/20/80. Statutory Authority: RCW 49.17.040, 49.17.150 and 49.17.240. 79-10-081 (Order 79-14), § 296-54-515, filed 9/21/79.]

AMENDATORY SECTION (Amending WSR 99-17-117, filed 8/18/99, effective 12/1/99)

WAC 296-54-527 Seat belts. Each machine equipped with ROPS or FOPS and each vehicle (whether provided by the employee or the employer) must meet the following requirements:

(1) A seat belt must be provided for each vehicle, vehicle occupant, and all machines equipped with ROPS.

Note: An employer is not required to retrofit a (~~machine or~~) vehicle that was not equipped with seat belts at the time of manufacture.

(2) Each employee must use the available seat belt while the vehicle or machine is being operated.

~~((EXCEPTION:~~

~~During road construction operations ONLY, when road building machine operators are faced with a significant steep and deep cliff on the side, a seat belt is not required to be worn, if the employee's immediate supervisor approves of such action.))~~

(3) Each employee must securely and tightly fasten the seat belt to restrain the employee within the vehicle or machine cab.

(4) Each machine seat belt must meet the requirements of the Society of Automotive Engineers Standard SAE J386, June 1985, "Operator Restraint Systems for Off-Road Work Machines." Seat belts need not be provided for equipment that is designed only for stand-up operations.

(5) Seat belts must not be removed from any vehicle or machine. The employer must replace each seat belt that was

removed from any vehicle or machine that was equipped with seat belts at the time of manufacture.

(6) Each seat belt must be maintained in a serviceable condition.

[Statutory Authority: RCW 49.17.010, [49.17].040 and [49.17].050. 99-17-117, amended and recodified as § 296-54-527, filed 8/18/99, effective 12/1/99. Statutory Authority: RCW 49.17.040, [49.17].050 and [49.17].060. 96-22-013, § 296-54-529, filed 10/28/96, effective 1/1/97. Statutory Authority: RCW 49.17.040, 49.17.050, 49.17.240, chapters 43.22 and 42.30 RCW. 80-11-057 (Order 80-15), § 296-54-529, filed 8/20/80. Statutory Authority: RCW 49.17.040, 49.17.150 and 49.17.240. 79-10-081 (Order 79-14), § 296-54-529, filed 9/21/79.]

AMENDATORY SECTION (Amending WSR 99-17-117, filed 8/18/99, effective 12/1/99)

WAC 296-54-537 Chain saws. (1) Operators must inspect chain saws daily to ensure that handles and guards are in place, and controls and other moving parts are functional.

(a) Each chain saw placed into initial service after February 9, 1995, must be equipped with a chain brake and, shall otherwise meet the requirements of ANSI B175.1-1991 "Safety Requirements for Gasoline-Powered Chain Saws" and the requirements of this chapter;

(b) Each chain saw placed into service before February 9, 1995, must be equipped with a protective device that minimizes chain saw kickback, i.e., reduced kickback bar, chains, bar tip guard, or chain brake; (~~and~~)

(c) No chain saw kickback device shall be removed or otherwise disabled; and

(d) Chain saws must be operated and adjusted in accordance with the manufacturer's instructions.

(2) Saw pinching and subsequent chain saw kickback must be prevented by using wedges, levers, guidelines, and saw placement, or by undercutting.

(3) Chain saws must be:

(a) Shutoff while fueling;

(b) Fueled outdoors at least ten feet from anyone smoking or from other potential sources of ignition; and

(c) Started at least 10 feet (3 m) from the fueling area.

(4) Chain saws must have a positive means of stopping the engine.

(5) Unless the carburetor is being adjusted, the chain saw must be shut off before any adjustments or repairs are made to the saw, chain, or bar.

(6) Using a chain saw with a faulty clutch is prohibited.

(7) The bar must be handled only when the chain saw motor is shut off.

(8) The drive end of the chain saw bar must be guarded.

(9) The chain saw must have an automatic throttle control that will return the engine to idle speed when the throttle is

released.

Note: Idle speed is when the engine is running and the chain does not rotate on the bar.

(10) The chain saw must be started:

(a) With the chain brake engaged, unless the manufacturer prohibits; or

(b) On the ground, log or where otherwise firmly supported.
Drop starting a chain saw is prohibited.

(11) A chain saw must be held with the thumbs and fingers of both hands encircling the handles during operation unless the employer demonstrates that a greater hazard is posed by keeping both hands on the chain saw in a specific situation.

(12) The chain saw must be carried in a manner that will prevent operator contact with the cutting chain and muffler.

(13) The chain saw must be shut off or at idle before the faller starts to retreat.

(14) The chain saw must be shut down or the chain brake engaged whenever a saw is carried:

(a) Further than 50 feet (15.2 m); or

(b) Less than 50 feet if conditions such as, but not limited to, the terrain, underbrush, and slippery surfaces, may create a hazard for an employee.

(15) Using a chain saw to cut directly over head is prohibited.

(16) The chain saw operator must be certain of footing before starting to cut. The chain saw must not be used in a position or at a distance that could cause the operator to become off-balance, to have unsteady footing, or to relinquish a

firm grip on the saw.

[Statutory Authority: RCW 49.17.010, [49.17].040 and [49.17].050. 99-17-117, § 296-54-537, filed 8/18/99, effective 12/1/99. Statutory Authority: RCW 49.17.040, [49.17].050 and [49.17].060. 96-22-013, § 296-54-537, filed 10/28/96, effective 1/1/97. Statutory Authority: RCW 49.17.040, 49.17.150 and 49.17.240. 79-10-081 (Order 79-14), § 296-54-537, filed 9/21/79.]

AMENDATORY SECTION (Amending WSR 99-17-117, filed 8/18/99, effective 12/1/99)

WAC 296-54-557 Wire rope. (1) Wire rope must be of the same or better grade as originally recommended by the equipment manufacturer.

(2) Wire rope must be removed from service when any of the following conditions exist:

(a) In running ropes, six randomly distributed broken wires in one lay or three broken wires in one strand in one lay;

(b) Wear of one-third the original diameter of outside individual wires. Kinking, crushing, birdcaging, or any other damage resulting in distortion of the rope structure;

(c) Evidence of any heat damage from any cause;

(d) Reductions from nominal diameter of more than 3/64-inch for diameters to and including 3/4-inch, 1/16-inch for diameters

7/8-inch to 1-1/8-inch, inclusive, 3/32-inch for diameters 1-1/4-inches to 1-1/2-inches inclusive;

(e) In standing ropes, more than two broken wires in one lay in sections beyond end connections or more than one broken wire at an end connection;

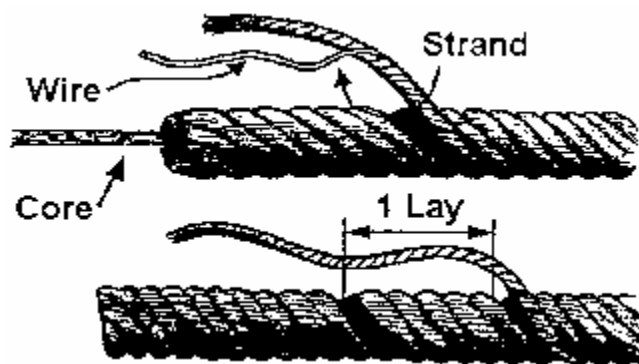
(f) In standing ropes, when twelve and one-half percent of the wires are broken within a distance of one wrap (lay); and

(g) Corroded, damaged, or improperly applied end connections.

(3) Wire rope must be kept lubricated as conditions of use require.

~~((EXCEPTION:~~

~~This section does not apply to chokers.))~~



Wire rope selection is an important element in cable logging.

WIRE ROPE

[Statutory Authority: RCW 49.17.010, [49.17].040 and [49.17].050. 99-17-117, § 296-54-557, filed 8/18/99, effective 12/1/99. Statutory Authority: RCW 49.17.040, [49.17].050 and [49.17].060. 96-22-013, § 296-54-557, filed 10/28/96, effective 12/12/05 7:40 AM [10] OTS-8451.3

1/1/97. Statutory Authority: RCW 49.17.040, 49.17.050, 49.17.240, chapters 43.22 and 42.30 RCW. 80-11-057 (Order 80-15), § 296-54-557, filed 8/20/80. Statutory Authority: RCW 49.17.040, 49.17.150 and 49.17.240. 79-10-081 (Order 79-14), § 296-54-557, filed 9/21/79.]

AMENDATORY SECTION (Amending WSR 04-14-028, filed 6/29/04, effective 1/1/05)

WAC 296-54-573 Logging machines--General. (1) All logging machinery must have speed limiting devices, safety stops, or emergency shut down devices or shut off valves, with the controls located so that in the event of an emergency, the prime mover may be shut down from a safe place.

(2) The floor and lower portion of cabs must be completely enclosed with solid material, except at entrances, to prevent the operator from being injured by obstacles which otherwise could enter the cab compartment.

(3) Machine operators must be experienced in operating the equipment they use.

EXCEPTION: Inexperienced employees may operate equipment to gain experience while in training but may do so only while working under the immediate supervision of an experienced authorized person.

((~~3~~)) (4) All machine controls must be marked as to their purpose in the operation of the machine.

((~~4~~)) (5) The rated capacity of any vehicle transporting

a machine must not be exceeded.

~~((5))~~ (6) Machines must be loaded, secured, and unloaded in a manner that will not create a hazard for any employee.

Note: This requirement includes the loading, securing and unloading of a machine on and off a transport vehicle.

~~((6))~~ (7) The employer must not make any modifications or additions that affect the capacity or safe operation of the equipment without written approval of the manufacturer or a qualified engineer. If modifications or changes are made, the capacity, operation and maintenance instruction plates, tags, or decals, must be changed accordingly. The original safety factor of the equipment must never be reduced.

~~((7))~~ (8) Equipment must be classed and used according to the manufacturer's rating. Where low gear ratios or other devices are installed to increase the line pull in accordance with subsection ~~((6))~~ (7) of this section, the size of the rigging must be increased accordingly so that it will safely withstand the increased strains.

~~((8))~~ (9) Each machine, including any machine provided by an employee, must be maintained in serviceable condition and the following:

(a) Each machine must be inspected before initial use during each workshift. Defects or damage must be repaired or the unserviceable machine is replaced before beginning work.

(b) Operating and maintenance instructions must be available on the machine or in the area where the machine is being operated. Each machine operator and maintenance employee must comply with the operating and maintenance instructions.

(c) Each machine must be operated only from the operator's station or as otherwise recommended by the manufacturer.

(d) Employees must not be allowed to ride on any load.

~~((9))~~ (10) The yarding machine or vehicle, including its load, must be operated with safe clearance from all obstructions.

~~((10))~~ (11) While manual/mechanized falling is in progress, all logging machines must be operated at least two tree lengths away from trees being fell.

EXCEPTION: This provision does not apply to logging machines performing tree pulling operations or logging machines called upon by the cutter to ground hazard trees. All cutters must be notified of the logging machine entrance into the area and all falling within two tree lengths of the logging machine must stop.

~~((11))~~ (12) If a hydraulic or pneumatic storage device can move the moving elements such as, but not limited to, blades, buckets, saws and shears, after the machine is shut down, the pressure or stored energy from the element must be discharged as specified by the manufacturer.

~~((12))~~ (13) Loads must not exceed the rated capacity of the pallet, trailer, or other carrier.

~~((13))~~ (14) Boom-type logging machines must have a boom stop to prevent over-topping of the boom.

~~((14))~~ (15) Boom points of timber booms must be equipped with metal straps, plates, or other devices as needed to properly secure eyebolts and fittings used to support lines, blocks, or other rigging.

~~((15))~~ (16) Logging machine sleds or bases must be strong enough to withstand any stresses imposed upon them.

((~~(16)~~)) (17) Stationary logging machines must be securely anchored or otherwise stabilized to prevent unintended movement while yarding or skidding.

((~~(17)~~)) (18) Logging machines and their components must be securely anchored to their bases.

((~~(18)~~)) (19) Logging machines must be kept free of flammable waste materials and any materials that might contribute to slipping, tripping or falling.

((~~(19)~~)) (20) A safe and adequate means of access and egress to all parts of logging machinery where persons must go must be provided and maintained in a safe and uncluttered condition. Machine access systems, meeting the specifications of the Society of Automotive Engineers, SAE J185, June 1988, "Recommended Practice for Access Systems for Off-Road Machines," must be provided for each machine where the operator or any other employee must climb onto the machine to enter the cab or to perform maintenance. Walking and working surfaces of each machine and machine work station must have a slip-resistant surface to assure safe footing.

((~~(20)~~)) (21) Enclosed-type cabs installed on mobile logging machines must have two means of exit. One may be an emergency exit and be available for use at all times regardless of the position of the side arms or other movable parts of the machine. An easily removable window is acceptable as the emergency exit if it is large enough for an employee to readily exit.

EXCEPTION: ((~~Mobile logging machines~~)) Cable yarders manufactured before July 1, 1980 are not required to have two

means of exit.

((~~(21)~~)) (22) Before leaving the operator's station of a machine, the operator must ensure the machine is secured as follows:

(a) The parking brake or brake locks must be applied;

(b) The transmission must be placed in the manufacturer's specified park position; and

(c) Each moving element such as, but not limited to, blades, buckets, saws and shears, must be lowered to the ground or otherwise secured.

((~~(22)~~)) (23) Storing employee property, tools, or other miscellaneous materials on or within three feet of any logging machine is prohibited if retrieving the items would expose an employee to the hazardous pinch point area between the rotating superstructure and the nonrotating undercarriage.

((~~(23)~~)) (24) Employees must approach the hazardous pinch point area only after informing the operator of that intent and receiving acknowledgment from the operator that the operator understands the employee's intention. All logging machines must be stopped while any employee is in the hazardous pinch point area.

((~~(24)~~)) (25) After adjustments or repairs are made, logging machines must not be operated until all guards are reinstalled, safety devices reactivated, and maintenance equipment removed.

((~~(25)~~)) (26) Fairleads must be properly aligned at all times and designed to prevent line damage.

~~((26))~~ (27) Employee(s) ~~((, except a mechanic or employee in training to operate equipment,))~~ must not ride on any mobile logging machine unless provided with seating, seat belts, and other protection equivalent to that provided for the operator.

EXEMPTION: Mechanics in the course of their job and trainees, operating under circumstances that minimize their exposure to dangerous situations, are exempt from this requirement.

~~((27))~~ (28) Riding on arches, reaches or turn of logs is prohibited.

~~((28))~~ (29) Tractors, skidders, arches, or logs being yarded by them must not run over or rub against anchored lines, tailhold stumps, or other rigging.

~~((29))~~ (30) Ends of lines attached to drums on logging machines must be secured by end attachments that develop the ultimate strength of the line unless three wraps of line are maintained on the drum at all times.

EXCEPTION: This does not apply to tractors or skidders.

~~((30))~~ (31) Wire rope must be wound on drum spools in a manner to prevent excessive wear, kinking, chafing or fouling.

~~((31))~~ (32) Guylines required in rigging spars or towers must be evenly spooled to prevent fouling.

~~((32))~~ (33) A guide pulley, tool, stick, iron bar or other mechanical or manual means must be used when guiding lines onto drums. Guiding lines onto drums with any part of the body in direct contact with the line is prohibited.

~~((33))~~ (34) A limit switch must be installed on electric-powered log loaders to prevent the lift arms from traveling too

far in the event the control switch is not released in time.

~~((34))~~ (35) All forklift type log handling machines must be equipped with a grapple system and the arms must be closed whenever logs are being carried.

~~((35))~~ (36) When forklift machines are used to load, unload, or handle trailers, a positive means of holding the lifting attachment on the fork must be installed and used.

~~((36))~~ (37) Loads on forklift type log handling machines must be transported as low as safely operable without obstructing visibility.

~~((37))~~ (38) Guyline drum controls and outrigger controls must be separated and clearly identified in a manner that will prevent the engaging of the wrong control.

~~((38))~~ (39) Each machine must be equipped with guarding to protect employees from exposed moving elements, such as, but not limited to, shafts, belts, pulleys on chains, sprockets and gears in accordance with the requirements of this standard and chapter 296-806 WAC, Machine safety. Guards must be in place at all times when machines are in use.

Note: This does not apply to lifting or yarding components such as, but not limited to, cable nip points, sheaves and blocks.

~~((39))~~ (40) Each machine used for debarking, limbing, and chipping must be guarded to protect employees from flying wood chunks, logs, chips, bark, limbs, and other material in accordance with the requirements of this standard and chapter 296-806 WAC, Machine safety.

~~((40))~~ (41) Grab rails must be provided and maintained in good repair on all walkways of stationary units elevated more

than four feet.

((~~(41)~~)) (42) Towed equipment such as, but not limited to, skid pans, pallets, arches, and trailers, must be attached to each machine or vehicle to allow a full ninety degree turn; to prevent overrunning of the towing machine or vehicles; and to ensure that the operator is always in control of the towed equipment.

((~~(42)~~)) (43) Timbers used for masts or booms shall be straight-grained, solid, and capable of withstanding the working load.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. 04-14-028, § 296-54-573, filed 6/29/04, effective 1/1/05. Statutory Authority: RCW 49.17.010, [49.17].040 and [49.17].050. 99-17-117, § 296-54-573, filed 8/18/99, effective 12/1/99. Statutory Authority: RCW 49.17.040, 49.17.150 and 49.17.240. 79-10-081 (Order 79-14), § 296-54-573, filed 9/21/79.]

AMENDATORY SECTION (Amending WSR 99-17-117, filed 8/18/99, effective 12/1/99)

WAC 296-54-57355 Logging machines--Protective structures for operators. (1) Each tractor, skidder, log stacker and mechanical felling device, such as tree shears or feller-buncher, placed into initial service after February 9, 1995, must be equipped with falling object protective structure (FOPS) and/or rollover protective structure (ROPS). The employer must replace FOPS or ROPS which have been removed from any machine.

EXCEPTION: This requirement does not apply to machines which are capable of 360 degree rotation.

(2) ROPS must be installed, tested, and maintained in accordance with the Society of Automotive Engineers SAE J1040, April 1988, "Performance Criteria for Rollover Protective Structures (ROPS) for Construction, Earthmoving, Forestry, and Mining Machines."

(3) The ROPS must be high enough and wide enough so that it will not impair the movements of the operator or prevent his immediate escape from the vehicle in emergencies and must allow as much visibility as possible. Clearance above the deck and the ROPS of the vehicle at exits must be at least fifty-two inches (1.3 meters).

(4) Certified roll-over protective systems must be identified by a metal tag permanently attached to the ROPS in a

position where it may be easily read from the ground. The tag must be permanently and clearly stamped, etched or embossed indicating the name and address of the certifying manufacturer or registered professional engineer, the ROPS model number (if any) and the vehicle make, model or serial number the ROPS is designed to fit.

(5) Roll-over protective structure systems must be maintained in a manner that will preserve their original strength. Welding must be performed by qualified welders only. (A qualified welder is defined under "welder qualification" in American Welding Society A.W.S. A3.0-69.)

(6) FOPS structures must be installed, tested and maintained according to:

(a) The society of automotive engineers SAE J231-1971, "minimum performance criteria for falling object protective structures (FOPS) prior to February 9, 1995."

(b) Society of automotive engineers SAE J231, January 1981, "minimum performance criteria for falling object protective structures (FOPS) for each tractor, skidder, log stacker, log loader and mechanical falling device, such as tree shears or faller-buncher, placed into initial service after February 9, 1995."

(7) The employer must replace FOPS that have been removed from any machine.

(8) Vehicles with ROPS or FOPS as required in subsection (1) of this section, must comply with the society of automotive engineers SAE J397a-1972, "deflection limiting volume for

laboratory evaluation of roll-over protective structures (ROPS) and falling object protective structures (FOPS) of construction and industrial vehicles." Vehicles placed into initial service after February 9, 1995, must meet the requirements of SAE J397-1988.

(9) The opening in the rear of the ROPS on the crawler or rubber-tired tractors (skidders) must be covered with 1/4-inch diameter woven wire having not less than 1-1/2 inches or more than 2-inch mesh, or material which will afford equivalent protection for the operator.

(a) The covering must be attached to the structural members so that enough clearance is provided between the screen and the back of the operator.

(b) Structural members must be free from projections that would tend to puncture or tear flesh or clothing.

(c) Suitable safeguards or barricades must be installed, in addition to the screen, to protect the operator when there is a possibility of being struck by any material that could enter from the rear.

(10) Crawler and rubber-tired tractors (skidders) working in areas where limbs or brush may endanger the operator must be guarded.

(a) Shear or deflector guards must be installed on each side of the vehicle at an angle leading forward and down from the top front edge of the canopy of the vehicle, which will tend to slide the brush or limbs up and over the top of the canopy.

(b) Open mesh material with openings of a size that will

reject the entrance of an object larger than 1-3/4-inches in diameter, must be extended forward as far as possible from the rear corners of the cab sides to give the maximum protection against obstacles, branches, etc., entering the cab area.

(c) Deflectors must also be installed ahead of the operator to deflect whipping saplings and branches.

(d) Deflectors must be located so as not to impede entrance to or exit from the compartment area.

(e) The floor and lower portion of the cab must be completely enclosed with solid material, except at entrances, to prevent the operator from being injured by obstacles which otherwise could enter the cab compartment.

(11) (~~Enclosures for agricultural and industrial tractors manufactured after September 1, 1972, must be constructed, designed and installed as detailed in the society of automotive engineers technical report J168.~~) Each machine manufactured after August 1, 1996, must have a cab that is fully enclosed with mesh material with openings no greater than 2 inches (5.08 cm) at its least dimension. The cab may be enclosed with other material(s) where the employer demonstrates such material(s) provides equivalent protection and visibility.

EXCEPTION: Equivalent visibility is not required for the lower portion of the cab where there are control panels or similar obstructions in the cab, or where visibility is not necessary for safe operation of the machine.

Enclosures for agricultural and industrial tractors manufactured after September 1, 1972, must be constructed, designed and installed as detailed in the society of automotive engineers technical report J168.

(12) Overhead protection and other barriers must be installed to protect the operator from lines, limbs, and other moving materials on or over all loading or skidding machines and on all yarding machines where the operator's station is mounted on board. The overhead covering of each cab must be of solid material and extend over the entire canopy. A skylight in a logging machine must be made of safety glass or provide equivalent protection.

Note: This does not apply to self-loaders.

Reference: For requirements relating to overhead protection on forklifts, see chapter 296-863 WAC, Forklifts and other powered industrial trucks.

[Statutory Authority: RCW 49.17.010, [49.17].040 and [49.17].050. 99-17-117, § 296-54-57355, filed 8/18/99, effective 12/1/99.]

AMENDATORY SECTION (Amending WSR 99-17-117, filed 8/18/99, effective 12/1/99)

WAC 296-54-581 Helicopter logging--General. (1) Prior to daily logging operations, a briefing must be conducted. The briefing must set forth the plan of operation for the pilot(s) and ground personnel. Anytime a change in operating procedure is necessary, affected personnel must be notified.

(2) Employees and equipment must remain in the clear and
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employees must never be under a suspended load.

(3) Employees must not work under hovering craft except for that limited period of time necessary to guide, secure, hook/unhook loads, and perform maintenance/inspections or other related job duties.

(4) The location of the drop zone, decking areas, loading areas, and designated safety zones must be established by a pilot and a responsible supervisor taking into consideration current operating conditions.

(5) Personal protective equipment.

(a) Employees must wear high visibility hard hats secured by a chinstrap.

(b) Employees hooking and receiving the load must wear high visibility vests or outer garments.

(6) Whenever approaching or leaving a support helicopter with blades rotating, employees must:

(a) Remain in full view of the pilot and keep in a crouched position;

(b) Obtain a visual or audible acknowledgment from the pilot before entering or exiting the helicopter;

(c) Avoid the area from the cockpit or cabin rearward unless authorized by the helicopter company to work there; and

(d) Exercise special caution to keep clear of rotors when visibility is reduced.

(7) Before approaching or departing the service area for maintenance, visual and/or audible communication must be established.

(8) There must be reliable communication available between the helicopter, woods crew, landing, and service areas. In the absence of radio communication there must be a designated signal person.

(9) Developed hand signals must be clearly communicated and understood by all persons working in the area who may be affected by their use.

(10) Riding the load or hook of a helicopter is prohibited except in an emergency rescue situation.

(11) Unauthorized employees must not be allowed to approach within fifty feet of the helicopter when the rotor blades are turning.

(12) Every practical precaution must be taken to provide for the protection of employees from flying objects in the rotor downwash.

(13) Loads must be properly slung. Tag lines used by ground personnel to position loads must be of a length that will not permit their being drawn up into rotors. Pressed sleeve, swaged eyes, or equivalent means must be used for all freely suspended loads to prevent hand splices from spinning open or cable clamps from loosening.

[Statutory Authority: RCW 49.17.010, [49.17].040 and [49.17].050. 99-17-117, § 296-54-581, filed 8/18/99, effective 12/1/99. Statutory Authority: RCW 49.17.040, 49.17.150 and 49.17.240. 79-10-081 (Order 79-14), § 296-54-581, filed 9/21/79.]

AMENDATORY SECTION (Amending WSR 99-17-117, filed 8/18/99, effective 12/1/99)

WAC 296-54-593 Log unloading, booms, and rafting grounds--Storage and sorting areas--General. (1) At least two persons must be present for all storing, sorting, or boom work, except for boomboat operations.

(2) Employees working on, over, or along water, where there is a danger of drowning, must be provided with and wear approved personal flotation devices.

(a) Employees are not considered exposed to the danger of drowning when:

(i) Employees work behind standard height and strength guardrails;

(ii) Employees work inside operating cabs or stations that will prevent accidentally falling into the water; or

(iii) Employees wear approved safety belts with lifeline attached to prevent falling into the water.




(b) Before and after each use, personal flotation devices must be inspected for defects that would reduce their designed effectiveness. Using a defective personal flotation device is prohibited.

(c) An approved personal flotation device must be approved by the United States Coast Guard as a Type I PFD, Type II PFD, Type III PFD, or Type V PFD, or their equivalent, as required in

46 CFR 160 (Coast Guard Lifesaving Equipment Specifications) and 33 CFR 175.23 (Coast Guard table of devices equivalent to personal flotation devices). Ski belt or inflatable personal flotation devices are prohibited.

(3) In operations where regular logging machinery, rigging, etc., is used, the applicable rules apply.

~~((3))~~ (4) The employer must provide and ensure the use of artificial lights where employees work between the hours of sunset and sunrise. The lights must be located in a manner that will:

-  Be reasonably free of glare;
-  Provide uniform distribution of illumination; and
-  Avoid sharply defined shadows.

~~((4))~~ (5) On all log dumps, adequate power for the unloading method used must be provided. All machines used for hoisting, reloading, or lowering must be of an approved design and have enough power to control or hold the maximum load imposed in mid-air.

~~((5))~~ (6) Methods of unloading logs must be arranged and used in a manner to provide full protection to all employees.

~~((6))~~ (7) Binders must not be released from any load until an effective safeguard is provided.

~~((7))~~ (8) All mobile log handling machines must be equipped with a means to prevent the logs from accidentally leaving the forks, and it must be used.

~~((8))~~ (9) The operator of the unloading machine must have an unobstructed view of the unloading area or must make certain

no one is in the area where the logs are to be unloaded. Rearview mirrors must be installed on mobile log handling equipment to assist the operator in determining that the area behind the machine is clear before backing up.

((~~9~~)) (10) Unloading lines must be arranged so that it is not necessary for an employee to attach them on the pond or dump side of the load.

((~~10~~)) (11) Life rings with a minimum of ninety feet of 1/4-inch line with a minimum breaking strength of five hundred pounds attached, must be provided at convenient points adjacent to water that is five feet or more in depth. Life rings must be a minimum of thirty inches outside diameter and seventeen inches inside diameter and be maintained so as to retain a thirty-two pound positive buoyancy.

[Statutory Authority: RCW 49.17.010, [49.17].040 and [49.17].050. 99-17-117, § 296-54-593, filed 8/18/99, effective 12/1/99. Statutory Authority: RCW 49.17.040, [49.17].050 and [49.17].060. 96-22-013, § 296-54-593, filed 10/28/96, effective 1/1/97. Statutory Authority: RCW 49.17.040, 49.17.050, 49.17.240, chapters 43.22 and 42.30 RCW. 80-11-057 (Order 80-15), § 296-54-593, filed 8/20/80. Statutory Authority: RCW 49.17.040, 49.17.150 and 49.17.240. 79-10-081 (Order 79-14), § 296-54-593, filed 9/21/79.]

REPEALER

The following section of the Washington Administrative Code
is repealed:

WAC 296-54-51180 Personal flotation devices.